

REMARKS

With entry of the foregoing amendments, claims 1, 24, 35-39, 41-45, 81, 86 and 97 are pending. Claims 2-23, 25-34, 40, 46-80, 82-85 and 87-96 are cancelled. Claims 1 and 86 have been amended. Support for the amendment to claim 1 can be found at least at page 30, lines 20-25. Claim 86 was amended to make the preamble consistent with the other claims. Claim 97 is newly added and support for this claim can be found at page 30, lines 20-25. Applicants assert that no new matter is added by the amendments to the claims.

Obviousness Rejection over Sherf, Zolotukhin, Donnelly, Pan, Cornelissen, Hey and Wood

The Examiner rejected claims 1, 24, 35-39, 41-45, 47, 81-82, and 86-87 under 35 U.S.C. §103(a) as unpatentable over Sherf (U.S. Patent 5,670,356) in view of Zolotukhin (U.S. Patent No. 5,874,304), Donnelly (WO 97/47358), Pan (Nucl Acids Res 27:1094 (1999)), Cornelissen (U.S. Patent No. 5,952,547), Hey (U.S. Patent No. 6,169,232) and Wood (WO 99/14336). Applicants respectfully traverse this rejection.

None of the cited references teaches or suggests a synthetic nucleic acid molecule having at least 99% nucleotide sequence identity to any of SEQ ID NO: 9, SEQ ID NO: 16, SEQ ID NO: 18, SEQ ID NO: 297, SEQ ID NO: 299, or SEQ ID NO: 301, nor do any of the cited references teach or suggest the synthetic nucleic acid molecules of SEQ ID NO: 9, SEQ ID NO: 16, SEQ ID NO: 18, SEQ ID NO: 297, SEQ ID NO: 299, or SEQ ID NO: 301. In addition, none of the cited references teaches or suggests synthetic nucleic acid sequences with at least 3-fold fewer of a combination of different mammalian transcription factor binding sequences.

The Examiner admits that the combination of references does not disclose or suggest any of SEQ ID NO: 9, SEQ ID NO: 16, SEQ ID NO: 18, SEQ ID NO: 297, SEQ ID NO: 299, or SEQ ID NO: 301 and suggests that claims limited to these nucleic acid would be allowable. See Office action of September 3, 2009 at page 8. The Examiner indicates that the references do suggest nucleic acids structurally related to these sequences and thus argues that the claim, which included nucleic acid sequences having 95% sequence identity to those listed, is obvious over the combination of references. Claim 1 has been amended to limit the nucleic acid molecules to those having 99% identity to SEQ ID NO: 9, SEQ ID NO: 16, SEQ ID NO: 18, SEQ ID NO:

297, SEQ ID NO: 299, or SEQ ID NO: 301 and claim 97 is directed to the synthetic nucleic acid molecules of SEQ ID NO: 9, SEQ ID NO: 16, SEQ ID NO: 18, SEQ ID NO: 297, SEQ ID NO: 299, or SEQ ID NO: 301 or fragments thereof. The limited genus of synthetic nucleic acid molecules currently claimed is not taught or suggested by any combination of the references.

One of skill in the art would also not have a reasonable expectation of success in arriving at this genus based on the teachings provided in the cited references. The cited references relate to modified sequences obtained by selecting certain criteria for inclusion or exclusion of particular features in the synthetic nucleic acid molecule. The selection criteria in the cited references is distinct from that used herein, thus based on these references one skilled in the art would not reasonably expect to obtain the claimed genus. For example, none of the cited references discloses making the large number of nucleotide changes made in the claimed nucleic acid molecules to remove transcription factor binding sequences. None of the cited references provides a reasonable expectation of success in removing the large number of transcription factor binding sequences and maintaining the ability to have high level transcription of the nucleic acid molecule and expression of the polypeptide encoded by the nucleic acid. The removal of these transcription factor binding sequences enhances the genetic neutrality of the nucleic acid molecule and increases the value of the molecule as a reporter.

Therefore, withdrawal of this rejection is respectfully requested.

Nonstatutory Obviousness-type Double Patenting

The Examiner provisionally rejected claims 1, 24, 35-39, 41-45, 47, 81-81 and 86-87 as unpatentable over claims 1-5, 8, 9, 11-13, 15, 18-21, 24-45, 47 and 60-62 of co-pending U.S. Application No. 11/786,785. Applicants again note that neither the present application, nor the '785 application has issued. Therefore, a terminal disclaimer is not required at this time. Applicants respectfully request that this rejection be held in abeyance pending a notice of allowable subject matter in one of the applications.

CONCLUSION

Applicants respectfully request entry of the amendments, reconsideration on the merits, withdrawal of the rejections and allowance of the claims. If the Examiner has any questions or concerns, please contact Applicants' undersigned representative.

Respectfully submitted,



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